

DESCRIPTIONS OF SOME NEW SPECIES OF
COLEOPTERA.

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(Plates I.-LI.)

CHALCOTÆNIA BI-IMPRESSA, n.sp.

Elongate navicular, slightly enlarged at the posterior third. Head golden green, epistoma and mandible fiery copper, vertex bluish, pronotum blue with the medial sulcus green or golden, lateral impressions irregularly rugose, green or golden with yellow pubescence; elytra green, the basal and humeral region irregularly uneven, with some confluent impressions, one distinct discal impression on each elytron situated on, and interrupting, the second costa, on anterior third, smooth, golden or with yellow pubescence (as also the depressed parts of the baso-humeral region), the discal impression limited by the first and third costæ; the costæ bluish; antennæ with first two joints fiery red, the rest brown, underside and legs green or golden, more or less clothed with yellow pubescence, tarsi green above, brown beneath.

Head unequally punctured, widely excavated (♂ with a vertically raised transverse plate notched in the middle in front of eyes, ♀ with a simply notched carina). *Pronotum* nearly straight at apex and base, measuring 5 and 6½ mm. respectively, all angles acute and a little depressed, sides only gradually widening, scarcely rounded, the smooth raised parts of disc with a few large punctures, the medial sulcus and other depressions more finely and closely punctured, a short carina extending from the posterior angle obliquely forward. *Scutellum* circular, convex and smooth. *Elytra* a little roundly widening at the shoulders (without any angulation), sinuate on the sides, tapering towards apex, posterior

edges finely serrated, suture raised and punctate forming a double costa on posterior two-thirds, widening towards the base, four costæ distinct throughout the greater part of their length, smooth, the first entire; the second starting behind the confused humeral region, interrupted by the discal impression, and joining the first near apex; the third shorter than preceding, starting behind the humeral callus, terminating on apical declivity; the fourth near and parallel to sides, starting behind the shoulder and continuous to apex, near but not joining the first; the depressed portions of elytra closely and clearly punctate (the punctures larger than in *C. australasie* Saund.; humeral callus grossly punctate). *Prosternum* with a wide central depression, its process rounded at apex, coarsely punctate in middle, transversely rugose at sides, meso- and metasternum coarsely and sparsely punctate, basal segment of abdomen widely and triangularly excised, second segment slightly depressed or flattened in middle, whole abdomen closely finely punctate, (♀ with some smooth bluish impressions along the margins of segments, ♂ with a wide triangular excision at apex of abdomen.) *Dimensions*: ♂, $25 \times 8\frac{1}{2}$ mm.; ♀, $22\frac{1}{2} \times 8$ mm.

Hab.—Kalgoorlie, West Australia (Mr. F. H. Duboulay).

Two specimens, the sexes, purchased from Mr. Duboulay, differ from all described species in having only one distinct impression on anterior portion of each elytron (beyond some confused and confluent humeral impressions. In *C. elongata* Waterh., the single impression is behind the middle. The male specimen has little or no pubescence on its upper surface, probably through abrasion, showing golden markings where the female shows yellow pubescence; the underside of the male is golden while that of the female is green. There are other minor differences of sculpture.

Types in the author's coll.

Having examined further specimens in the Australian Museum, and in Mr. Duboulay's collection, I find, in two male specimens, a faint indication of a second postmedian impression, on the second costa, partly interrupting it.

NASCIO COSTATA, n.sp.

Elongate, sinuate; the whole surface above and below metallic bronze, moderately nitid; head bronze with green reflections, prothorax concolorous bronze, elytra bronze with some obscure darker patches, and two small yellowish spots close together on the apical declivity; antennæ greenish-bronze, underside and legs bronze of a lighter shade, and more nitid than the upper surface.

Head rugosely unevenly punctate, with nitid tubercles above the insertion of antennæ. *Prothorax* with apex slightly raised, and advanced in middle, advanced and rounded at anterior angles, sides subparallel anteriorly, slightly sinuate behind, posterior angles rectangular, not produced; disc with a long wide central depression, deepening at the base (giving the appearance of a darker colour), and a fine sub-basal transverse depression; coarsely punctate, base truncate. *Scutellum* small and circular. *Elytra*: surface undulate and uneven, base closely fitting and of the same width as prothorax, soon widening at shoulders, sinuate at middle, again widening and sinuately narrowed behind, the apex produced, sublobate, and rather wide at its extremity, strongly serrated on sides, with strong exterior spines, the sutural region a little produced, but scarcely spinose. Disc punctate-striate, depressed behind scutellum, with strong post-median lateral depressions, having two strongly raised nitid, parallel and sinuate costæ on each elytron extending from base to apex, the interior pair the more strongly raised, diverging and raised anteriorly, with a slight indication of a third costa exterior to the preceding; shoulders gibbous, the whole surface finely shagreened. *Abdomen* closely punctate, sternum finely and closely rugose, whole undersurface clothed with decumbent golden hairs. *Dimensions*: 6.5-10.5 × 1.75-3.75 mm.

Hab.—Illawarra (Mr. W. Duboulay and the author), Ourimbah (Mr. H. Cox), Dorrigo (Mr. R. J. Tillyard).

Five specimens have been examined, three taken by the author and Mr. Duboulay at Otford, in December, 1911 (beaten from foliage of *Acacia*, or *Lillipilli*, in company with *N. multesima* Oll.), the other two taken in November, by Mr. Tillyard. Mr. Cox has cut out specimens from timber at Ourimbah. The species is easily recognised by its almost concolorous, beautiful bronze colour, its undulate and costate surface, and its sublobate apex, which characters make it quite distinct from all other described species. The apical spines are the termination of the interior costæ. The male has the last segment of abdomen shorter than that of the female, with its apex truncate, the corresponding segment of the female being rounded and extended fully to the apex of the elytron. Types is the author's coll.

NASCIO TILLYARDI, n.sp.

Elongate, narrow; head and prothorax bright metallic green, the extreme vertex of the former and disc of the latter with an ill-defined median vitta of a dark copper colour, elytra bright metallic green at base, soon merging into iridescent colours formed of a combination of purple, green and copper, the first of these predominant: each elytron with two orange, or red, spots, the larger in front of, the smaller behind the middle; underside, legs, and antennæ bright metallic green.

Head with shining tubercles above the insertion of antennæ, and with the prothorax closely and coarsely punctate: prothorax with apex slightly produced in the middle and at the rounded anterior angles, sides parallel for the greater part, sinuate posteriorly, with the angles rectangular and somewhat explanate, base truncate; the disc regularly convex without excavations or median impression, with a strong subbasal sinuate transverse impression, starting from a central basal fovea and arcuately extending a little forward to the sides, the basal portion thus separated somewhat flattened. *Scutellum* circular and foveate. *Elytra* moderately convex,

wider than prothorax at base, very slightly sinuate at the middle, then widening and again gradually tapering to the moderately wide apex, this narrower part finely serrated at the sides, with a strong exterior spine at the apex of each elytron, and a much shorter (scarcely evident) interior (or sutural) spine; disc with basal border raised and subcarinate, portion immediately behind this depressed; strongly punctate-striate, the punctures in the striæ large and close, intervals convex, the suture, second and fourth intervals more raised and nitid than the rest (the second interval forming a narrow costa extending from the end of the green portion at base and continuous with the exterior spines at apex). Sternum coarsely, abdomen less coarsely, but strongly and closely punctate, and with the tarsi clothed with short sparse whitish hairs. *Dimensions*: 8.85 × 2.5 mm.

Hab.—Dorrigo (Mr. R. J. Tillyard).

Two specimens, the sexes, taken by Mr. Tillyard in November, 1911, are readily distinguished from their allies as follows: *N. pulchra* V. d. Poll, by the absence of three spots on head, lateral vitta on thorax, and the colour of the elytra; from *N. viridis* Macl., by the two spots on each elytron (*N. viridis* having only one) besides other colour-differences, while *N. munda* Oll. has its head and prothorax copper, underside "bright coppery," and the posterior angles of prothorax "acute and projecting," *inter alia*. In the male specimen, the metallic colours of the elytra are more brilliant than in the female, the green at the base being followed by a vague semicircle of a fiery or red copper, extending from shoulder to shoulder, this colour showing also at the sides and apex. In the female specimen the colours are duller, but still show a reddish tinge at the shoulders and apex. Types in the author's coll.

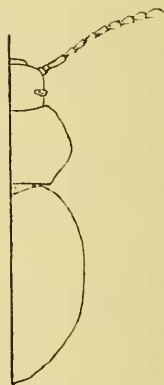
Stigmodera caudata Cart. = *S. Hackeri* Cart.—The former of these names is preoccupied by a species described by Kerremans (Ann. Soc. Ent. Belg. 1900, p.316). I, therefore, propose the name *Hackeri* for the same.

Note.—*N. retusta* Boisd.:—The black markings on the elytra are very variable; I have one specimen with a broad black fascia; another with merely the lateral and lunar markings described by Kerremans in *N. lunaris*, and corresponding with his description. Other specimens show intermediate markings. If I am correct in this identification of *N. lunaris* Kerr., I cannot consider this species of more than varietal importance.

ADELIUM COXI, n.sp.

Ovate, slightly convex, dark bronze above and below, moderately nitid; antennæ and tarsi reddish, the latter clothed beneath with golden tomentum.

Head closely and coarsely punctate (rugose on the vertex), epistomal suture circular, antennæ robust, joint 3 scarcely as long as 4 and 5 combined, apical four joints oval, and of lighter colour than the preceding. *Prothorax* arcuate, emarginate at apex, truncate at base, sides widely rounded, widest behind middle, gently and arcuately converging in front, more abruptly and sinuately behind, all angles obtuse, posterior widely so, but defined (about 130°), with smooth border narrowly raised throughout, lateral margins somewhat explanate but scarcely differentiated in sculpture, or separated from disc, the latter without medial line, closely, not very finely rugosely punctate, with a few larger punctures on anterior and some depressions on posterior part. *Scutellum* small, globular and finely punctate. *Elytra* oval, wider than prothorax at base and sharply rounded at apex,



A. Coxi, n.sp.

with nine lines of punctures, the last on sides, unseen from above; the punctures in series unequal in size, frequently confluent and elongate, those in the lateral row large, close and equal, alternate intervals forming smooth costæ, the first two wide and little raised, the last two more sharply raised and wavy, the suture also subcostate at apex. Sternum and abdomen smooth and glossy, the last segment of the latter finely punctate, intercoxal process entire, widely oval. *Dimensions*: 10-11 × 4-4.6 mm.

Hab.—Ebor, Northern Highlands of New South Wales.

Two specimens, taken by Mr. H. W. Cox, appear to be the sexes. The species belongs to my Section ii., and is intermediate between Subsections B and C, the size, colour, and sculpture of the elytra showing affinity to *A. geminatum* Pasc., while the form and sculpture of the prothorax are nearer those placed under Subsection C.

ADELIUM FLAVICORNE, n.sp.

Elongate-elliptic, black, with a violet tinge, very nitid above, nitid black beneath; palpi, tarsi, and antennæ (except the three basal joints) pale yellow.

Head and *pronotum* coarsely rugose-punctate, labrum prominent, epistoma semicircular in front, limited behind by curved suture, canthus prominently raised, head widest at the eyes, these large and prominent, antennæ very long, extending beyond the base of prothorax, joint 3 about as long as 4 and 5 combined, cylindrical; joint 4 shorter than succeeding, 4-8 subcylindric, 9-10 elongate, but more conical, 11 elongate-ovate, as long as, but not wider than 10. *Prothorax* 3 × 4 mm., length measured in middle, greatest width at middle, base and apex of nearly equal width, anterior angles prominent, widely rounded and lobate, sides widely and sinuately rounded, rather abruptly incurved posteriorly to meet the wide rectangular posterior angles, the anterior half strongly crenulated, the extreme margin nodulose, but raised and entire on posterior half; disc evidently canaliculate in ♂, this channel subobsolete in ♀ specimen, base truncate and (like the apex and sides) narrowly bordered, margins wide and foliated, and less coarsely rugose than discal portion. *Scutellum* triangular and smooth. *Elytra* wider than prothorax at base, oval and convex, shoulders rounded, showing epipleural fold, sides slightly widening to beyond the middle, then tapering finely to the apex; lineate-punctate, with about ten lines of punctures on each elytron, the punctures regularly spaced but of unequal size, the intervals with elongate raised shining nodules, varying in size, and somewhat irregularly placed (*i.e.*, with some indications of a linear arrangement), becoming coarser at the sides, and more conical towards

the apex, giving a crenulate aspect to the sides as seen from above; the intervals between the nodules and seriate punctures quite smooth and nitid; epipleuræ with violet reflections, coarsely punctate; abdomen with basal segments smooth, apical segment minutely punctate, their sides impressed; intercoxal process rather squarely rounded with entire raised margin; prosternum and submentum smooth, legs finely punctate, tibiæ thin and straight, finely spinose and clothed with yellow hair at apex. *Dimensions:* ♂, 12×4.5 mm.; ♀, 14×6 mm.

Hab.—Cape Otway Ranges, and Apollo Bay, Victoria.

Three specimens of this interesting novelty were sent, amongst other Tenebrionidæ, for determination, from the National Museum, Melbourne. It is entirely distinct from all described species by the following combination: (1) crenulate prothorax, with round lobate anterior angles; (2) yellow antennæ; (3) nitid violet-black upper surface and epipleuræ; (4) prominently nodulose surface. The three basal joints of the antennæ are also tinged with yellow; the crenulation of the interior half of the sides of prothorax is variable and less marked in the male than in the female. Its general shape is that of *A. angulicolle* Cast.; but, in my classification of Adelium, it should be placed in Section ii., Subsection B, rather than with the "pustulose" species, since the nodules may be regarded as an extreme case of interrupted raised intervals. The types have been returned to the National Museum, Melbourne.

SCELEOCANTHA GIGAS, n.sp. (Plate I., fig. 1).

♀. Widely ovate, surface above and below black, nitid and (except the sternum) glabrous; palpi, tarsi, and apical joints of antennæ rufous.

Head with a few sparse punctures on front, closely punctured behind eyes, mandibles diffusely punctate, a triangular medial depression not continuous to base; antennæ with joint 1 thickened, 3 rather longer and stouter than 4, 5-10 of equal length, 11 lanceolate and more closely punctured than preceding, palpi with apical joint triangular. *Prothorax* strongly transverse, apex subtruncate, without margin, sides strongly, acutely bidentate, the

first formed by the anterior angles directed outwards, the second tooth at the middle, large and directed backwards, base sinuate, margined, and with a fringe of red hair behind; disc smooth, very nitid, except for some minute punctures in lieu of medial line, and coarse punctures at sides. *Scutellum* large, convex, bilobed (or excised) posteriorly, finely punctate. *Elytra* much wider than prothorax at base, and about four and a half times as long, shoulders round, widest behind middle, apex widely rounded, not spinose, disc coarsely rugose-punctate, the punctures often longitudinally confluent, with some smooth spaces near base, closer towards apex, with two well-marked, scarcely raised lines on each elytron, not continued to base or apex. *Abdomen* glabrous, very nitid, finely and diffusely punctate, sternum clothed with fine reddish down, prosternum produced behind into a rounded hump, finely rugose-punctate, gular strongly transversely rugose; femora finely, tibiae more coarsely punctate, the latter unequally spinose on outer edge (*e.g.*, front left tibia with one spine, the right with two, middle left tibia with three, the right with two, etc.), ovipositor strongly produced and scissor-like. *Dimensions*, 43 × 23 mm.

♂. Wanting.

Hab.—Dorrigo, New South Wales (R. J. Tillyard).

A single specimen of this fine species was amongst the fine captures of Mr. Tillyard, in November, 1911. It differs from the well-known *S. glabricollis* Newm., by darker colour, greater size (especially width), the sharply dentate anterior angles of prothorax, nitid and glabrous abdomen, *inter alia multa*. It is still further removed from the West Australian species, *S. pilosicollis* Hope. Type in author's coll.

TILLYARDIA (nov.gen. Prionidarum).

Palpi three-jointed, third joint lamellate, with an enlarged cup-shaped flabellum; other characters as in *Sceleocantha*.

TILLYARDIA MIRABILIS, n.sp. (Plates 1, figs. 2-3; li.).

Piceous-brown, palpi, tarsi, and apical joints of antennae piceous-red; head, pronotum, prosternum, and legs moderately clad, the margins of pronotum fringed with pale red hairs, the

metasternum densely clad with long flavous hair; elytra of darker brown, subnitid and glabrous.

Head channelled between the eyes, irregularly rugosely punctate, mandibles coarsely punctate, large, rectangular in outline, subtruncate in front; eyes reniform, finely faceted; antennæ, joint I moderately enlarged, 3 slightly longer than 4, 4-10 of equal length but of diminishing thickness, 11 flattened and lanceolate. *Pronotum* very transverse, wider at apex than at base, the former truncate with raised border, the latter sinuate and narrowly bordered, with central lobe rounded behind; sides with a single long acute spine directed outwards and backwards; anterior angles obtuse, scarcely dentate, disc rugosely punctate, medial line indicated by an indistinct smooth impression. *Scutellum* large, rounded behind, front portion concealed by pronotal cilia; closely punctate. *Elytra* much wider than prothorax at base, shoulders rounded, apex widely rounded and subtruncate, with two small sutural spines; closely pitted with large round punctures, often confluent on basal half, becoming smaller but distinct at apex and sides, with a narrow raised border channelled within. Abdomen with some fine scattered punctures, prosternum and legs with much larger punctures, those on the legs widely placed, tibiæ channelled, four spined at apex, front tibiæ with one small spine on exterior edge, intermediate tibiæ with one larger spine halfway, and sometimes two smaller spines above this, posterior tibiæ with two or three spines on exterior edge. *Dimensions*, 24-25 × 10-10·5 mm.

Hab.—Dorrigo, New South Wales (Mr. R. J. Tillyard).

Two specimens, both male, of this remarkable Prionid were taken by Mr. Tillyard, in November, 1911. I can find no character which distinguishes the species from the other members of *Scelocantha* except the wonderfully shaped palpi (I have undoubted specimens of *S. glabricollis* Newm., and *S. pilosicollis* Hope, before me). The anterior angle of prothorax is scarcely dentate though slightly reflexed. The palpi would seem to give the rank of subfamily to the genus, but, as the female is yet unknown, the full importance of the character cannot at present be determined. In the maxillary palpi, the first two joints are

very short, the third is like a cradle-shaped basket, of which the "hood" is solid and the sides with branching lamellæ. In the labial palpi, the first two joints are slightly longer, with the "hood" of the cradle less pronounced, so that its shape is that of a canoe.

Mr. Tillyard has taken the trouble to draw the figure of the palpi, for which I am greatly indebted to him, while the photographs were kindly supplied by Mr. H. V. Macintosh, of the Sydney University.

EXPLANATION OF PLATES L.-LI.

Plate l.

Fig. 1.—*Sceleocantha gigas*, n.sp.

Figs. 2-3.—*Tillyardia mirabilis*, n.sp.; dorsal and ventral veins.

Plate li.

Fig. 1.—Maxillary palpus of *Tillyardia mirabilis*, n.sp.

Fig. 2.—Labial palpus.

Fig. 3.—Part of rib of maxillary palpus, showing cilia.

(Much enlarged.)

mp_1 , first joint of maxillary palpus— mp_2 , second joint of maxillary palpus— lp_1 , first joint of labial palpus— lp_2 , second joint of labial palpus.